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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/089,789	06/03/1998	JAY M. SHORT	D1270-3US	3204
29062	7590	12/10/2010	EXAMINER	
VERENIUM CORPORATION			MCGARRY, SEAN	
Intellectual Property Department				
P.O. Box 910550			ART UNIT	
SAN DIEGO, CA 92191-0550			PAPER NUMBER	
			1635	
			NOTIFICATION DATE	
			DELIVERY MODE	
			12/10/2010	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/089,789	Applicant(s) SHORT, JAY M.	
	Examiner Sean R. McGarry	Art Unit 1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-60, 62 and 65-82 is/are pending in the application.
- 4a) Of the above claim(s) 44, 45, 50, 54-60, 62, 70, 71 and 76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43, 46, 47, 51-53, 65-69, 72-75, and 77-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/22/2010 has been entered.

Claims 43-60, 62, and 65-82 are pending.

Claims 44, 45, 58-50, 54, 57-60, 62, 70, 71, and 76 remain withdrawn from consideration. Claims 55 and 56 are now withdrawn from consideration since the claims have been amended to depend from withdrawn claim 43.

Claims 43, 46, 47, 51-53, 65-69, 72-75, and 77-82 are currently under examination.

In the response filed 6/22/2010 applicant requested a telephonic interview upon a review of the response. The examiner contacted applicant representative on 11/29/2010

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to comply with this request. Applicants representative, Lynn Linkowski, indicated by voice message that an interview was not desired.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 43, 46, 47, 51-53, 65-69, 72-75, and 77-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The previous grounds of rejection have been overcome in view of applicants amendments to the claims. The grounds of rejection below are new grounds based on applicants amendments to the claims.

Claims 43, 80 and 82 all recite "a step comprising" (i), (ii), and (iii) in part (c) of each claim. The language renders the claim vague and indefinite since "a step" ie a single step can not comprise all steps (i), (ii), and (iii). The language also lends to improper Markush language where, if the intent of the limitation is to select from (i), (ii) and (iii), then the term comprising leave one in the art left with an unidentified group where the groups to select from comprises (i), (ii) and (iii) but is not limited thereto where the potential other constituents of the group are unidentified.

Claim 66 recites "wherein the at least one organism marker" There is insufficient antecedent basis for this language in the claim.

Claim 69 recites "wherein the at least one organism marker" There is insufficient antecedent basis for this language in the claim.

Those claim indicated as rejected and not specifically treated above are rejected in so far as they depend from the claims addressed above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 43, 46, 47, 51-53, 65-69, 72-75, and 77-82 are rejected under 35 U.S.C. 102(a) as being anticipated by Stein et al [Journal of Bacteriology Vol. 178(3):591-599, 1996].

Stein et al have disclosed the characterization of uncultivated prokaryotes where the organism samples were obtained directly from an aquatic environment. Genomic nucleic acid samples were selected and placed into libraries. The uncultivated organism samples were subject to various selections such as size selection. For example, 30 liter samples were filtered to select for organisms and these samples were further

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subject to concentration of the desired organisms (see material and methods at page 592 and see also page 593 "Results" . It is disclosed that some samples were collected for rRNA abundance analysis. Nucleic acids were screened for rDNA. Nucleic acid samples were placed into vectors where digested nucleic acids of 35-45kpb were selected.

Vectors were placed into E.coli and this organism sample was selected for plasmid containing cells(it is noted that this organism sample represents a heterologous population since, for example the initial population subjected to selection either contained fosmids/plasmids or did not and also contained different fosmids/plasmids, for example). The population or sample was selected for, first cells that contain fosmids and then further selected for clones that contained 16S rDNA. This sample was even further subcloned where the clones contained gene clusters(see page 594, for example.). rDNA containing samples were selected utilizing primers. Nucleic acid samples were selected based on nucleic acid content including 16S RNA and it is disclosed that the sample contained a specified content of C+C content. See entire Materials and Methods section and also Figure 1 which shows various organism and nucleic acid selection steps and well as Figure 2 which shows selection of nucleic acids. See also Table 1. See also top of right column on page 595 and right column of page 596, for example.

Applicant arguments filed 6/20/2010 have been considered but are not persuasive. Applicant argues that the uncultivated organisms were not manipulated. This is not agreed with since they were filtered and concentrated and the bacteria

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populations of the cloning/subcloning steps were also selected by various means. It should also be noted that applicant terms used in the claims are defined broadly in the specification. For example "catalogued comprises any library, including libraries with one constituent, that is characterized with respect to its constituents (see pages 11 and 14). "Adjusting to advantage" includes no adjustment (see page 14). "an organism form includes E.col1 (see page 12). A fraction includes 100% (see page 13).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 43, 46, 47, 51, 52, 55, 56, 65-69, 72-75, and 77-79 **were** rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over

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claims 1-14 of U.S. Patent No. 6,001,574. This rejection is moot in view of the terminal disclaimer filed 6/22/2010. The TD has been approved and entered in the application.

Claims 43, 46, 47, 51, 52, 55, 56, 65-69, 72-75, and 77-79 **were** rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 5,763,239. This rejection is moot in view of the terminal disclaimer filed 6/22/2010. The TD has been approved and entered in the application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean R. McGarry whose telephone number is (571) 272-0761. The examiner can normally be reached on M-Th (6:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Calamita can be reached on (571) 272-2876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sean R McGarry
Primary Examiner
Art Unit 1635

/Sean R McGarry/
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